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UNIVERSITY OF THE STATE OF NEW YORK

BULLETIN

Number 1284 ALBANY January 2, 1945

Community Surveys in Determining Needs for Vocational Industrial Education

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BY

EDWARD H. LANG

Supervisor of Industrial Education
New York State Education Department

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EDWARD H. LANG
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Community Surveys in Determining Needs for Vocational Industrial Education

INTRODUCTION

Before planning any type of vocational industrial or technical school, a board of education is encouraged to conduct a survey of the community, with special emphasis on the nature and extent of employment in various fields where the schools might provide training. The results of such a survey should provide justification for the initiation or extension of vocational education facilities of the public schools.

The purpose of this bulletin is to assist in the planning and conduct of a community survey.

In the organization of a community survey, boards of education are urged to call on the Bureau of Industrial and Technical Education of the State Education Department for any needed assistance.

GENERAL OBJECTIVES OF A COMMUNITY SURVEY

1 To discover to what extent the schools are meeting the needs of the community

2 To determine the need for development of vocational training facilities

3 To provide data for the prediction of trends in employment conditions and community activities

4 To interest the public in the problems of education

5 To bring about coordination within the school and with other agencies

TYPES OF VOCATIONAL INDUSTRIAL AND TECHNICAL SCHOOLS

Vocational industrial and technical schools aim to prepare boys and girls for entrance into the technical, skilled trade and semiskilled occupations of manufacturing and service industry.

Technical schools are planned to train high school pupils in the work of industrial technicians, laboratory assistants and designers. Emphasis is placed on the acquisition of technical knowledges although some practical shopwork is included.

Trade schools or industrial high schools emphasize trade shop practice in preparing pupils for entrance into the skilled trade or craft occupations. Technical knowledges are included as they relate to the work of the trade.

General occupational schools are concerned with the preparation of pupils for entrance into the semiskilled jobs of production and service industry. In this type of school a pupil might also receive basic training in the basic trade fundamentals of a broad field, such as the building trades.

Part-time schools are organized to continue a pupil's education after he goes to work, but with no specific relation to his employment.

Part-time cooperative courses provide a high school program coordinated with the industrial employment of youth. Alternate periods are spent by the pupil on the job and in school.

In all these programs, general and cultural school subjects are included in the curriculum to assist the pupils in the understanding and appreciation of the problems of civic, economic and social life in the community.

Evening apprentice and trade extension courses are planned to assist persons already employed in industrial occupations with the skills and knowledges necessary for upgrading on the job.

Foreman and executive training courses are planned to assist the foremen of industrial plants in meeting responsibilities of their jobs and in the problems of dealing with personnel.

Details of these various types of vocational schools are set forth in other administrative bulletins issued by the State Education Department.

PROCEDURES IN CONDUCTING A COMMUNITY SURVEY

Formulating objectives. In order to accomplish the desired results, the first step in the organization of a community survey is the outlining of definite objectives. In this type of survey many forms of interesting data are uncovered, but definite objectives are necessary in order that only significant data are collected.

Preliminary considerations. It is well first to outline certain general considerations affecting the nature and scope of the survey. The exact geographical area to be covered in the survey is an important initial item. The time to be devoted to the survey should be considered. Consideration should be given to what current data are available and what information from past years' records will be significant. It is essential that well-qualified personnel be chosen for the general planning, collection of data and formulation of results.

Nature and extent of data. The extent of data available in a community is unlimited. It is important that only functional material be gathered. The following questions are some for which answers might be desired and may be of assistance in keeping the data on a useful basis.

1 What occupational groups exist in the community for which the school can efficiently train?
2 Are the numbers in these groups sufficient to justify a program of training?
3 What skills and trade knowledges are valuable to employes in these fields?
4 Are certain personality traits or physical qualifications necessary?
5 What specific types of vocational industrial or technical programs will meet the training needs?
6 What types of employment are obtained by graduates and dropouts from school?
7 Is there any relation between the pupil's school curriculum and the job obtained?
8 What percentage of graduates go on to college or other higher education?
9 Is the school offering effective training for the pupil's life as a citizen in the community?
10 Is school personnel familiar with the occupational opportunities in the community?
11 Are adequate facilities provided for pupil counseling, placement and follow-up?
12 Does the school program meet the educational needs of the youths and adults in the community?

Sources of data. Before proceeding with direct sources of information, it is well to consider certain secondary sources of data about the community which have been compiled by other agencies. Some of these are indicated in the following outline:

1 Sixteenth United States Census, 1940
  a Population, First Series, Number of Inhabitants, New York, 10c
  b Population, Second Series, Characteristics of the Population, New York, 30c
  c Population, Third Series, The Labor Force, Occupation, Industry, Employment and Income, New York, 35c

d Population, Fourth Series, Characteristics by Age, Marital Status, Relationship, Education and Citizenship, New York, 30c

e Population, The Labor Force, Occupational Characteristics

f Population and Housing, Families, Tenure and Rent

g Housing, First Series, Data for Small Areas, New York, 15c

h Retail Trade, New York, 1939

i Service Establishments, New York, 1939

j Wholesale Trade, New York, Statistics by Areas, Cities and Counties, 10c

2 National Industrial Conference Board

3 National Resources Planning Board

4 Census of Manufacturers of New York State

5 State Department of Commerce

6 State Division of Placement and Unemployment Insurance

7 State Department of Taxation and Finance

8 State Education Department

9 State Health Department

10 State Department of Social Welfare

11 United States Employment Service

12 State Chamber of Commerce

13 Associated Industries of New York State

14 State Federation of Labor

15 Congress of Industrial Organizations

16 Public utilities

17 Retail Merchants' Bureau

18 Local Chamber of Commerce

19 City officials

20 Local welfare organizations

21 Farm Bureau

22 State and local trade associations

23 Civic organizations

With study of the above sources of information, many preliminary data can be gathered regarding the nature of the employment and economic conditions of the community. Adequate time spent with these secondary sources will reduce the amount of work in the collecting of direct information.

Methods of procedure. In the direct collection of data regarding community conditions, three general methods may be used: the questionnaire, the personal interview and the group conference method.

In the use of a questionnaire, care should be exercised to make questions simple and direct. Briefness is another desirable characteristic, since business executives are required to prepare numerous government reports, and one more request may not be met with enthusiasm. Answers to questions should require as little writing as possible. Very careful planning is necessary in order to frame questions that will procure the desired information.

The personal interview is an extremely satisfactory method of obtaining the necessary data, but this method is time consuming. For this reason it is essential that the persons chosen for interview be those with authority to speak for the policy of a company. Persons chosen as interviewers should be trained in their procedure, to insure that the proper approach is used, that questions are significant and that functional results are obtained.

The group conference may be used where a number of persons are concerned with the same problem. It has the advantage over the personal interview in that group discussion often brings out many sides of a situation and promotes cooperation between persons with varying interests. Such a conference needs expert leadership in order to limit the discussion to topics consistent with the objectives of the survey.

In the planning and organization of a community survey, a board of education often enlists the active cooperation of other civic groups. Often a community survey will be sponsored jointly by a board of education and the local chamber of commerce or another civic group. Business organizations and employers are often more willing to participate if such joint sponsorship is obtained.

In the initial phases of a survey, community participation can be encouraged by public meetings for the discussion of the purposes and possible results. The active assistance of the local newspapers will help in bringing the survey to the attention of the public and will assist in obtaining the participation of the entire community. It is important that all groups involved in the survey be brought into active participation as early as possible, so that they have a real part in its planning and organization.

SUGGESTED STATISTICS AND FORMS

On the following pages are included some lists of statistics and information which may be of value in the conduct of a community survey. These lists are suggestive only and should be studied very closely to insure inclusion of significant data.

1 General statistics
  - *a* Area to be covered in the survey
  - *b* Population of community and area, 1920, 1930, 1940
  - *c* Percentages of native and foreign-born
  - *d* Nationalities represented
  - *e* Characteristics of population by age, marital status, education
  - *f* Housing conditions
  - *g* Trading radius
  - *h* Assessed valuation, real valuation
  - *i* School tax
  - *j* Lists of local employer, labor, civic organizations with names of executive officers

2 School information
  - *a* Names and occupations of members of board of education
  - *b* Names and positions of school administrative staff
  - *c* Capacity of school buildings
  - *d* Present school population, with breakdown by ages, grades and curriculums
  - *e* Pupils entering college or other courses beyond high school for past five years
  - *f* Number of postgraduates enrolled in high school and types of courses
  - *g* Summary of present plan of pupil guidance and counseling service
  - *h* Jobs obtained by graduates not attending college
  - *i* Number of dropouts by grades
  - *j* Jobs obtained by dropouts
  - *k* Summary of practical arts program, including industrial, household and commercial arts
  - *l* Outline of present-day vocational school facilities
  - *m* Data on evening vocational and adult education programs

On the following three pages are suggested forms that might be used in the collection of data regarding the occupations of the community. These forms will not fit every situation, but they include an indication of the type of material that may be significant in determining needs for vocational industrial and technical training.

ANALYSIS OF EMPLOYES IN A METAL MANUFACTURING COMPANY

Name of company..........
Persons interviewed..........
Interviewer.......... Date..........

OCCUPATION	NUMBER OF EMPLOYES	
	Men	Women
Office		
Salesmen		
Accountants		
Clerks		
Stenographers		
Others		
Engineering and drafting department		
Designers		
Technical assistants		
Draftsmen		
Tracers		
File clerks		
Blueprint boys		
Others		
Manufacturing departments		
Foremen		
Toolmakers		
Machinists		
Apprentices		
Helpers		
Machine operators		
Bench workers		
Welders		
Buffers		
Heat treaters		
Patternmakers		
Coremakers		
Molders		
Assemblers		
Inspectors		
Millwrights		
Electricians		
Carpenters		
Laboratory technicians		
Others		
Shipping and receiving department		
Foremen		
Clerks		
Packers		
Others		

DATA ON SPECIFIC OCCUPATIONS

Name of company ....

Products ....

Persons interviewed ....

Interviewer .... Date ....

Title of occupation ....

	MEN	WOMEN
Number of fully skilled employes in this occupation		
Number of learners or apprentices........		

		MEN	WOMEN
Age grouping	Under 20		
	20 — 30		
	30 — 40		
	Over 40		

Annual turnover ....

Aptitudes necessary ....

Minimum education required............. ....

Increasing or decreasing demand for trained workers ....

Is the work seasonal?.................. ....

Time necessary to learn the trade......... ....

Is training desirable before employment?.. ....

Is there a plant training program?........ ....

Are trained workers available?........... ....

Sources of trained workers.............. ....

Is there preference for certain nationalities? ....

Is there need for apprentice training?..... ....

Is there need for upgrading training for employes? ....

ANALYSIS OF EMPLOYES IN LOCAL BUSINESS CONCERNS

BUSINESS	NUMBER OF EMPLOYERS	EXECUTIVES	NUMBER OF EMPLOYES			
			Technicians	Skilled workers	Semi-skilled workers	Laborers
Apartment houses						
Architects' offices						
Auto salesrooms						
Auto supply stores						
Bakeries						
Barber shops						
Beauty shops						
Building contractors						
Buildings with sup'ts						
Cleaning and dyeing						
Coal dealers						
Department stores						
Dress shops						
Drug stores						
Drygoods stores						
Electrical stores						
Florists						
Fruit stores						
Fur stores						
Garages						
Greenhouses						
Grocery stores						
Hardware stores						
Hospitals						
Hotels						
Jewelers						
Landscape maintenance						
Laundries						
Lumber dealers						
Meat markets						
Men's clothing stores						
Millinery shops						
Music stores						
Photographers						
Plumbing shops						
Printing shops						
Radio shops						
Restaurants						
Service stations						
Sheet metal shops						
Shoe repair shops						
Shoe stores						
Tailors						
Theaters						
Variety stores						

INTERPRETATION AND ORGANIZATION OF RESULTS

After the data are collected, the conclusions to be drawn depend on the judgment of one person or a committee. The persons responsible for the interpretation of results should have the ability to consider, without prejudice, the trends indicated by the data. The results should indicate to all concerned:

1 A better understanding of the problem
2 Broad lines of desirable action
3 Some specific details of desired programs

In the presentation of results, primary consideration should be given to the interests and abilities of the persons to whom the report is addressed. Tables of numerical data, with percentages, may be used. Quotations from answers to questionnaires will often emphasize important points. Graphs and pictograms of various types can be used to illustrate trends.

The need for specific types of vocational industrial education programs will be indicated by the numbers of persons employed in various occupations, the rate of turnover and the available supply of trained workers. If there appears to be a need for training in certain areas of employment, then the school information should be studied to determine whether pupils of the right caliber are available in the school population to meet this need. The questions included in the section on nature and extent of data, page 7, are those for which the results should indicate an answer.

IMPLEMENTING THE FINDINGS

No survey serves its complete purpose unless some use is made of the results. In some instances, the results of a survey will indicate that present facilities are functioning satisfactorily and that no changes or additions are necessary. Most surveys indicate, however, that some new facilities are desirable, or that the activities of an agency should be extended. When such is the case, plans should be organized at once to accomplish the results indicated in the survey.

FORM OF PRESENTATION OF COMPLETE SURVEY

The exact form of presentation depends on the purposes of the survey. Following is a list of significant items that should be included in the final presentation.

1 Foreword, with acknowledgments
2 Table of contents
3 List of the agencies and staff conducting survey

4 Introduction
  a Brief history of the problem
  b Description of present conditions
  c Factors that indicated need for survey
5 Objectives, both general and specific
6 Description of procedures and methods of collecting data
7 Presentation of data, with charts, lists, graphs, pictograms
8 Summary of findings
9 Recommendations
10 Appendix, with sample forms

SUGGESTED REFERENCES

Canton (Ohio) Occupational Survey
Community Occupational Surveys
  United States Office of Education
Davenport (Iowa) Occupational Survey
Dover (Delaware) Survey, Trades and Industries
Evansville (Indiana) Job Opportunity Survey
Hartford (Connecticut) Survey of Occupational Opportunities
New Rochelle (New York) Occupational Survey
Olean (New York) Industrial Occupational Survey
Poughkeepsie (New York) Occupational Survey
Rockland County (New York) Occupational Survey
Savannah (Georgia) Occupational Outlook for Georgia Youth
Schenectady (New York) Job Opportunity Survey
Syracuse (New York) Occupational Survey
Toledo (Ohio) Vocational Survey of Boys' and Men's Occupations
Toledo (Ohio) Vocational Survey for Girls' and Women's Occupations

Vocational Technical Training for Industrial Occupations—A Report of the Consulting Committee on Vocational Technical Training appointed by the United States Commissioner of Education
Wilkes-Barre (Pennsylvania) Occupational Survey

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